



final report

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Young Food Innovators: Emerging Leaders - Public Report -

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Abstract

Australian Country Choice (ACC) has a strategic imperative to review current data collection, capture and analyses methods from which business decisions are made. ACC is currently facilitating MLA in the through the Young Food Innovator's program to develop two potential emerging leaders for the ACC business. An induction learning and development program over 13 weeks where the two Young Food Innovators (Processing Innovation Trainee – Glenn Bulloch) and Agribusiness Innovation Trainee (Joel Bentley) were exposed to all the areas of the agribusiness and processing areas of the business.

ACC participated in the Young Food Innovator Trainee program between June 2016 - May 2018. The overall objective of the co-funded position was to use data and information generated in the business and customer channels to provide insights to identify demand opportunities. This will in turn inform supply strategies through primary processing, further processing and new growth opportunities to create and capture value with a focus on export markets and new market segments

Australian Country Choice (ACC) currently operates a number of information systems across a vertically integrated beef supply chain. These systems currently capture data to monitor, control and report on operations across three business units Processing (ACC-P), Intensive Production (ACC-IP) and Rural Production (ACC-RP). Collection of relevant and accurate data is essential to generate decision from data. However, equally important is how freely and efficiently that information flows through the supply chain. For this reason, a deep dive discovery and exploration of the current supply chain information management systems (SCIMS) utilised across ACC's supply chain was undertaken to map out the current state of the SCIMS.

During this discovery phase, all departments within ACC were evaluated to develop an understanding of the end-to-end operation flow of inputs, processes and outputs.

The business imperatives & key business improvement focus areas were for the ACC processing business improvement focus were:

- 1) Executive software, hardware solutions and intuitive operational management expansion on existing software platforms (Scada/ Ignition/ ileader):
 - Refrigeration - waste power/ heat power
 - Waste water treatment plant (WWTP)
 - Rendering
 - OEE (RR and Mfg)
 - Compressed Air
- 2) Executive software, hardware solutions and intuitive operational management for Electricity and reduction.
- 3) Executive software, hardware solutions and intuitive operational management for site water usage reduction.
- 4) Waste streams - commercial opportunities investigation for:
 - Plastic

- Sludge
 - Paunch
 - Ash
- 5) ERP (Enterprise Resource Planning) project management support

A number of constraints have been identified and are being addressed as a result of new trainees coming in to the business, requiring a range of interventions in order to actively develop system sustainability and the necessary support networks.

Various projects managed by the ACC Processing Trainee during the period were part of the effort of ACC to improve its value chain by creating more value out of its limited product and existing production. At the conclusion of project, a comprehensive understanding of the end-to-end SCIMS has been developed and was presented to senior ACC processing and agribusiness management.

Table of contents

Abstract	2
1 Background	6
1.1 Company: Australian Country Choice.....	6
1.2 Rural R&D for Profit Market and consumer insight to drive food value chain innovation and growth “Insights2Innovation”	6
1.3 Emerging Leaders program	7
1.4 Scope of Work	8
2 Project objectives	10
3 Methodology	10
3.1 Residential Workshops	11
3.2 Priority Business Improvement Areas.....	11
3.3 Processing Innovation Trainee	11
3.4 Network Development and Training.....	11
4 Outcomes & Learnings	11
4.1 Learning from residentials.....	11
4.2 Priority business improvement areas.....	12
4.3 Innovation processes and culture	13
4.4 Network Development and Training.....	13
4.4.1 Training and Networking facilitated by ACC	13
4.4.2 External Training and professional development	13
5 Discussion	14
5.1 Personal Learnings	14
5.1.1 Program Learnings.....	14
5.1.2 Business Case Study (ACC).....	14
5.2 ACC Processing Innovation Trainee (YFI) L&D experience:	15
5.2.1 Current projects (on the job training)	15
5.2.2 Young Food Innovator’s Residentials	15
5.2.3 Mentoring (technical & personal development)	15
5.2.4 Conferences, workshops & networking meetings.....	16
5.3 Value proposition to ACC.....	16
5.3.1 Additional Resource	16
5.3.2 Process Improvement	16
5.4 Industry Benefit.....	16
5.4.1 Increased Awareness + Ability to Explore	16

5.4.2 Cross Industry Collaboration + Networks	17
6 Conclusions and Recommendations	17
6.1 Conclusions	17
6.2 Recommendations	18
7 Key Messages	18
8 Appendix – Supporting Documents	20
8.1 Work Plan on a Page (ACC Processing Trainee, Glenn Bulloch).....	20

1 Background

1.1 Company: Australian Country Choice

Australian Country Choice (ACC) is one of the largest vertically integrated beef supply chains and continues to strive for world's best practices across whole of business. ACC remains committed to attracting, developing and retaining staff to achieve this goal and is supportive of MLA's Food Value Chain Innovators: Emerging Leaders Traineeship program - a sub-project within the Insights to Drive Food Value Chain Innovation & Growth project (funded within the Rural R&D for Profit Programme). The specific aim of the MLA-ACC traineeship is to assist young professionals to build 'whole-of-chain' (plate to paddock) strategic value chain thinking and capabilities that equip them to work in ACC's value chain to seek innovations to grow high value opportunities in both domestic and export markets based on deep market and consumer insights. It is proposed that the "demand" ACC Processing Trainee will accompany a second "demand" ACC Agribusiness Trainee running concurrently across the ACC and ACC-ACBH business.

1.2 Rural R&D for Profit Market and consumer insight to drive food value chain innovation and growth “Insights2Innovation”

Insights2Innovation is a first of its kind collaboration between Meat & Livestock Australia, Dairy Australia, Hort Innovation, Fisheries Research and Development Corporation, Department of Economic Development, Department of Economic Development, Jobs, Transport and Resources, Rural Industries Research and Development Corporation, Wine Australia, Austrade, Department of Agriculture and Food, Western Australia, CSIRO and Australian Pork Limited.

The project intended to address key objectives of the Rural R&D for Profit Program by developing new knowledge and deep market insights that will inform more strategic innovation investment decisions, and ultimately, lead to increased value for primary products.

Specifically, this project focused on capturing market insights, identifying high-value opportunities in export markets and helping producers and their supply chain partners respond effectively to those opportunities. It also looked at building the capacity and capability of Agri-food supply chains to innovate and collaborate for market advantage, by creating easy-to-access tools and strategies.

By collaborating with stakeholders across the Agri-food sector, deep market insights were captured for the China, ASEAN and MENA regions. Crucial to the success of Insights2Innovation was the development of novel and practical approaches to translating these insights into innovation opportunities. Using the participatory action research framework, the project explored and evaluated different models of how to achieve this – one at the enterprise level (Value Chain Flagship Demonstrations) and the other at the individual level (Young Food Innovators).

Value Chain Flagship Demonstrations involved producers and their value chain partners working together to convert market and consumer insights into tangible innovation and growth options. Foundation research outputs and the learnings were embedded in the design of specific

strategies targeting identified market opportunities and in the development of pilot value chain designs.

Young Food Innovators was designed to help emerging industry leaders in the Australian agri-food sector develop a 'whole-of-chain' (plate-to-paddock) approach and build their strategic value chain thinking and capability. Delivered through a series of residential workshops, this cohort-based program enabled participants to work with food value chains that were seeking to innovate in order to grow high value opportunities; in both domestic and export markets, drawing on market and consumer insights.

1.3 Emerging Leaders program

The Young Food Innovators: Emerging Leaders program is a sub-project within the Insights to Drive Food Value Chain Innovation & Growth project (funded within the Rural R&D for Profit Programme) and is aimed at assisting the red meat, horticulture, seafood, dairy industries and pork (the participating sectors) to attract, develop and retain new talent. The specific aim is to assist young professionals to build 'whole-of-chain' (plate to paddock) strategic value chain thinking and capabilities that equip them to work with innovative food value chains that are seeking to innovate in order to grow high value opportunities in both domestic and export markets based on deep market and consumer insights.

The focus of the proposed Young Food Innovator's (YFI) Program will be to build and deliver strategic value chain thinking and capabilities on livestock production systems and meat procurement/scheduling and grading models informed by consumer and end customer insights and product supply.

The aims of the program are specifically:

- Excellence in category management and price point planning to create and capture carcass value using portfolio of strategic growth options and methodologies to convert information to insights to innovation strategies informed by emerging consumer/customer trends such as active ageing, snacking and convenience.
- Value chain design development for new markets and modes of operation
 - Evaluation, pilot and implementation of various production data capture and analyses systems such as Ignition.
 - Evaluation and integration of various data management platforms such as Ignition software and ileader as real-time, on-line business decision making tools and threat analyses.
 - Mapping all data management systems across ACC business and evaluate the master framework for measure, monitor and control of data across the ACC business.
 - Value based marketing and further processing design of MSA and/or non-MSA supply.
 - Integration and alignment of beef processing production through to Coles' customers with farm and livestock production systems (jointly with "supply" ACC trainee).
- Value based marketing approach from primary/further processing to retail markets using value chain design that feeds into the "supply" traineeship program.

ACC Trainees, Glenn Bullock & Joel Bentley have been recruited into two separate business areas of ACC (i.e. ACC processing and agribusiness). ACC's Trainees will also work on specific food value chain innovation, marketing and insight projects that are agreed by ACC and the Rural RD4Profit Insights Project Steering Committee (led by MLA) and participate in reporting lessons learnt analysis for attracting and retaining young innovators to agrifood sector.

The key aim of the program is to attract, develop and retain young people with value chain thinking to the agrifood industry. The contribution of the Young Food Innovator to the overall success of the ACC program will be determined by:

- Evidence of effective implementation of learning from (insights) data in the prescribed insights2innovation theme(s)
- Evidence of contribution to company's innovation culture and (as agreed) improvements in specific company innovation measures
- Efficient project delivery in accordance with budgets and timelines
- Quality of reports
- Contribution to Young Food Innovators Network

1.4 Scope of Work

The focus of the proposed program will be to build and deliver strategic value chain thinking and capabilities on livestock production systems and meat procurement/scheduling and grading models informed by consumer and end customer insights and product supply, specifically:

- Value chain design development from farm gate, to feedlots and through to primary processing systems that encompass ACC and ACBH supply programs using demand driven insights and enabling platforms such as MSA.
- Focus on production potential through developing methodologies on collection, capture, analysis and feedback of livestock and primary processing data and working groups as part of value chain design.
- Value chain design development for new markets and modes of operation
 - Evaluation, pilot and implementation of various production data capture and analyses systems including BeefSpecs, customised ACC and/or ACBH data systems to provide real time on-line business trading decision.
 - Evaluation and application of on-farm and livestock production prediction models and optimisation tools (aligned with processing and production grids).
 - Evaluation and application of beef genetics prediction systems and optimisation tools across ACC and/or ACBH businesses
 - Value based marketing and further processing design of MSA and/or non-MSA supply
 - Integration and alignment of beef farm and livestock production systems with processing production through to Coles' customers (jointly with "demand" ACC trainee)
- Value based marketing approach from primary/further processing to retail markets using value chain design that feeds into the "demand" traineeship program.

Trainees will also work on specific food value chain innovation, marketing and insight projects that are agreed by ACC and the Rural RD4Profit Insights Project Steering Committee (led by MLA) and participate in reporting lessons learnt analysis for attracting and retaining young innovators to agrifood sector. In addition to performing relevant value chain innovation roles within ACC, trainee will also work on specific food value chain innovation, marketing and insight projects that are agreed

by the ACC and MLA. Trainee will be supported by an external mentor (appointed by MLA in consultation with ACC) and will undergo a targeted training & development program over the two year period in key focus areas.

Australian Country Choice (ACC) currently operates a number of information systems across a vertically integrated beef supply chain. These systems currently capture data to monitor, control and report on operations across three business units Processing (ACC-P), Intensive Production (ACC-IP) and Rural Production (ACC-RP). Collection of relevant and accurate data is essential to generate decision from data. However, equally important is how freely and efficiently that information flows through the supply chain. For this reason, a deep dive Discovery and Exploration (D & E) of the current supply chain information management systems (SCIMS) utilised across ACC’s supply chain was undertaken to map out the current state of the SCIMS.

During the D & E phase, all departments within ACC were evaluated to develop an understanding of the end-to-end operation flow of inputs, processes and outputs. The scope, goals and objectives of the discovery and exploration stage are shown in Table 1 below.

Table 1: Scope, goals and objectives of the discovery & Exploration stage.

Scope of Work: Undertake a deep dive Discovery & Exploration of the current Supply Chain Information Management Systems (SCIMS) utilised across the vertically integrated supply chain of the Australian Country Choice (ACC) enterprise.	
Goal	Objective
Build an appreciation of the ‘operation’ flow of Inputs, Processes and Outputs across ACC- P, ACC-IP and ACC-RP business units.	Exposure to the location, function and constraints of business units and operations. Understand primary materials and resources on hand. Discover the processes undertaken to add value to these materials.
Develop an in depth understanding of how information integrates and transforms across business units to unify the Australian Country Choice supply chain to the ‘value proposition’ expectations of Coles Supermarket.	Map how SCIMS are currently used to deliver value to the ACC supply chain. (Looking Out) Map how SCIMS are currently used to create value to the ACC supply chain. (Looking In)
Identify ‘what’ are the current supply chain information management systems across the ACC Supply Chain.	Build a comprehensive database of current Data Sets.
Investigate ‘how’ information is captured for these systems.	Identify if the data is captured electronically or manually. Identify the software utilised by vendors and where possible assign indicative costing. Discuss hardware used in conjunction with software to capture relevant data. Understand Technical Knowledge, Skills and constraints that are currently impacting on the collection of manual and electronic data.
Define ‘why’ the capturing of specific information relates to operational and management functions of the ACC Supply Chain.	Data to Monitor operations. Data to Control operations. Data utilised to Report on operations

2 Project objectives

The overall objective of the co-funded position was to use data and information generated in the business and customer channels to provide insights to identify demand opportunities. This will in turn inform supply strategies through primary processing, further processing and new growth opportunities to create and capture value with a focus on export markets and new market segments.

The specific objectives were:

- Using data and information generated in the business and customer channels to provide insights to identify demand opportunities that inform supply strategies through primary processing, further processing and new growth opportunities to create and capture value.
- Develop innovation investment portfolios in enabling platforms and new business models and developing demand driven products and markets.
- Develop networks, skills and capability to collect and collate consumer attitudinal, category trading, quality and yield and value data and information to make business decisions and value chain design innovations from insights.
- Assist ACC in the development and implementation of value chain innovation strategy including investment in enabling platforms and new business models and developing demand driven products and markets for beef.
- Develop networks, skills and capability to collect and collate consumer attitudinal, category trading, quality and yield and value data and information to make business decisions and value chain design innovations from insights.
- Support and align to MLA-ACC Collaborative Innovation Strategies Program (CISP) and ACC's whole of business improvement approach and provide support to the current ACC business improvement team where this is consistent with the overall objectives of this program
- Trainee will also work on specific food value chain innovation, marketing and insight projects that are agreed by ACC and the Rural RD4Profit Insights Project Steering Committee (led by MLA) and participate in reporting lessons learnt analysis for attracting and retaining young innovators to agrifood sector.

3 Methodology

The primary aim of the program is to attract, develop and retain young people with value chain thinking to the Agrifood industry. The contribution of the Young Food Innovator to the overall success of the ACC program will be determined by:

- Evidence of effective implementation of learning from (insights) data in the prescribed insights2innovation theme(s)
- Evidence of contribution to company's innovation culture and (as agreed) improvements in specific company innovation measures
- Efficient project delivery in accordance with budgets and timelines
- Quality of reports
- Contribution to Young Food Innovators Network

3.1 Residential Workshops

- Participate in six workshops that each incorporate 5 days of information and application of learnings over a two year period. Focussed on Design led Innovation and Value Chain Design, these workshops were facilitated by globally recognised organisations.

3.2 Priority Business Improvement Areas

- Nominate a focus project to apply learnings from workshops to leverage innovation within the red meat industry.

3.3 Processing Innovation Trainee

- Explore, identify and conduct innovative process improvement as part of the Business Improvement (B.I) team.

3.4 Network Development and Training

- Continuously seek new information to understand problems and identify opportunities.
- Develop strong internal and external professional networks to accelerate value creation at three levels of personal, company and industry.
- Undertake training that compliments and assists in personal and professional development.

4 Outcomes & Learnings

4.1 Learning from residentials

- Understanding of Design Led Innovation tools for identifying market signals that allow concepts to be prototyped and tested in an iterative process to provide quick feedback on market desirability.
- Exposure to value chain design tools for visualising the links required to assess feasibility of potential business models.
- Exploration and critical discussion of concepts using case studies of innovative businesses along with market insights from industry experts, services providers and peers within the YFI program.
- Development of personal skills and networks through applied learning and networking across the agri-food and industrial design industries.
- Critically discuss learnings and understand what these mean from challenges and opportunities related to individual experiences, company and industry signals, along with broader global megatrends.

4.2 Priority business improvement areas

The focus of the proposed program will be to build and deliver strategic value chain thinking and capabilities on livestock production systems and meat procurement/scheduling and grading models informed by consumer and end customer insights and product supply, specifically:

- Excellence in category management and price point planning to create and capture carcass value using portfolio of strategic growth options and methodologies to convert information to insights to innovation strategies informed by emerging consumer/customer trends such as active ageing, snacking and convenience.
- Value chain design development for new markets and modes of operation:
- Evaluation, pilot and implementation of various production data capture and analyses systems such as Ignition, Scada and iLeader.
- Evaluation and integration of various data management platforms such as Ignition software and iLeader as real-time, on-line business decision making tools and threat analyses.
- Mapping all data management systems across ACC business and evaluate the master framework for measure, monitor and control of data across the ACC business.
- Value based marketing and further processing design of MSA and/or non-MSA supply.
- Integration and alignment of beef processing production through to Coles' customers with farm and livestock production systems (jointly with "supply" ACC Processing Innovation Trainee).
- Value based marketing approach from primary/further processing to retail markets using value chain design that feeds into the "supply" traineeship program.
- ACC Innovation Trainees will also work on specific food value chain innovation, marketing and insight projects that are agreed by ACC and the Rural RD4Profit Insights Project Steering Committee (led by MLA) and participate in reporting lessons learnt analysis for attracting and retaining young innovators to agrifood sector.
- Over the two year period, ACC stakeholders were collaboratively engaged to workshop a number of potential focussed innovation projects underpinned by operational excellence. These included; Building Management Systems, Waste Management, High Value Utilisation of By-products and Innovation Models for internal projects.
- These projects did not progress past the conceptualisation phase. A number of learnings are identified in the subsequent discussion.

Five non-data based projects are currently been undertaken these include:

- Anaerobic Digestion; Assist where required.
- Hydro-Cyclone; participate in trial and assist with installing lease unit.
- Fournier Rotary press; exploration of low energy solid dewatering for DAF Float and others for energy re-use.
- Pyrolysis; exploration of plastic waste and potential for reuse as diesel, gas or others.
- Human factors; Assist Kelly Smith in undertaking a focus project of human behaviour to onsite energy use.

4.3 Innovation processes and culture

- Five Imperatives and priorities were provided by ACC senior management in August 2016 (See Appendix, Section 8.1), these covered Water, Engery, Waste, OEE (Operational Equipment Effectiveness) and ERP (Enterprise Resource Planning).
- In depth exploratory work was conducted by participating at an operational level in multiple business units, along with engaging with stakeholders and third party companies to identify opportunities. These typically compiled data, assumptions and information into business cases with a targeted viability for application.
- Projects completed to date:
 - Automation of Aerobic Pond Level through PLC controlled actuator.
 - Re-Branding of Business Improvement Team
- Learning from ACC's current state of innovation will be detailed in the discussion.

4.4 Network Development and Training

4.4.1 Training and Networking facilitated by ACC

- ACC provided funding resources for external learning opportunities. This has included attending conferences on iloT, energy management and seperation techniques for high value components.
- More broadly, the locality of ACC has provided an opportunity to attend a number of events for learning and networking.
- ACC provided training in;
 - Project management (2 day course)
 - Statistics for Industry (5 day session)

4.4.2 External Training and professional development

- The locality of ACC has provided a unique opportunity to continue professional education. Supported by flexible working hours from ACC, I have been able to undertake a Graduate Certificate in Technology and Innovation Management at the University of Queensland.
- This has opened a number of opportunities including exposure to industry leaders in corporate sustainability, strategic planning and organisational behaviour. Additional to this has also been exposure to financial tools that have been applied to a number of internal projects.

5 Discussion

5.1 Personal Learnings

5.1.1 Program Learnings

- Being able to participate in the YFI program has accelerated my career through applied learning of tools and techniques that have better prepared me for dealing with increased change and ambiguity already facing the red meat industry.
- The application of these tools has allowed me to understand a number of different project and business appraisal techniques and the principals behind the selection of each tool.
- Exposure to global DLT organisations, other participant and facilitors has provided a stimulating environment to help further challenge thinking processes and communication techniques.
- Building and delivering a strategic value chain thinking and capabilities system for primary and further processing production systems, meat procurement/scheduling and grading model will be based on product supply key points, consumer and end-customer insights encompassing:
 - Excellence in category management and price point planning to create and capture carcass value using portfolio of strategic growth options and methodologies to convert information to insights to innovation strategies informed by emerging consumer/customer trends such as active ageing, snacking and convenience.
 - VCD applied to the development for new markets and modes of operation
 - Assessment of the viability and useability (i.e. evaluation, pilot and implementation) of various production data capture and analyses systems such as Ignition.
 - Evaluation and integration of various data management real-time platforms that can streamline online business decision making tools and threat analysis (e.g. Ignition software and ileader).
 - Mapping all data management systems across ACC business and evaluate the master framework for measure, monitor and control of data across the ACC business.
 - Value based marketing and further processing design for value creation/capture of MSA and/or non-MSA supply.
 - Integration and alignment of beef processing production through to Coles' customers with farm and livestock production systems (jointly with "supply" ACC trainee).
 - Value based marketing approach from primary/further processing to retail markets using value chain design that feeds into the "demand" traineeship program

5.1.2 Business Case Study (ACC)

- With the role never intended to utilise learnings from the YFI program, the position at ACC has provided a reflection on operational excellence, people and culture and business model execution along with strategy development.
- Project failure has provided multiple personal learnings. Identifying stakeholders, framing problems, leveraging strategy and influencing without authority have all been difficult components in contributing in a well established organisation.
- With no interest from ACC in the content of the program, I often contrasted the tools we had utilised in DLT with internal observations from hard fixed business process and have draw learnings from these failures.

- Despite technology and automation being a primary focus of my “Day to Day” role, a lack of engagement in business operations allowed me to explore problems and connect with employees. This along with shared learnings has provided me with an enhanced appreciation of the central contribution of people to realising success.

5.2 ACC Processing Innovation Trainee (YFI) L&D experience:

The program provides support for learning and development. The following L&D initiatives have been undertaken or planned to be adopted.

- Current projects (on the job learning)
- Young Food Innovator’s Residential (Second intake)
- Mentoring (technical & personal development)
- Conferences & workshops
- Network meetings & technical groups

5.2.1 Current projects (on the job training)

A high level status update is provided in the table below, identifying outcomes, and next steps for a number of the projects in progress. Additionally a number of other projects are underway that will be reported on in future reports.

The project focus has been on utilising knowledge built over the first 12 months to define, implement and control initiatives that focus on the reliability and effectiveness of resource utilisation; particularly Water, Electricity and Coal. In developing initiatives Safety and Asset Care were identified as central to ACC operational excellence, as each of the four mantras are used as pillars to build programs that result in firm augmentation between people and equipment through a culture that embraces information.

5.2.2 Young Food Innovator’s Residentials

Residentials were the corner stone for benchmarking progress to date in the Young food innovators program. A number of the tools explored through the previous residential schools were implemented in a mock shark tank approach to ideation, creation and prototyping products to market. Critical to the beneficial outputs of this experience is the need for continued support at the host company level to assist in implementation of tools to help in the delivery of sustainable outcomes to the company.

5.2.3 Mentoring (technical & personal development)

MLA assisting with technical support and through mentoring.

Professor Hamish Gow & Stuart Quigley (MLA mentors) met frequently with ACC processing trainee on and covered various topics to support the learning & development of the ACC trainees:

- Discuss major Young Food Innovator project(s)
- Discuss timelines and expectations for the project. I recommend you share with your sponsor the design criteria I sent through to you.
- Work with you and your sponsor so that you are all clear on the Young Food Innovator program and what it is delivering to you as an individual and to each of your organisations
- Ongoing support and mentoring for you for the remainder of the program
- Residential programs and potential study tours.
- Topics you or your sponsor may wish to raise.

5.2.4 Conferences, workshops & networking meetings

There were various external learning and development opportunities, including:

- Attended Hargraves Annual Conference – March 2017.
- Training identified - NH Project management (2 days) in June 2017.
- Various network meetings including with Hargraves Institute events were participated.
- In addition, technical events were attended in the course of the program including BrisScience: Transforming Australia's electricity system - Event Invitation (South Bank, Brisbane)

5.3 Value proposition to ACC

5.3.1 Additional Resource

- The availability of an additional resource to explore and report on process improvement opportunities was the goal of participating in the FYI program. Subsequently the primary value extraction for Australian Country Choice can be distilled to identification of process improvement opportunities for future business case development.

5.3.2 Process Improvement

- Projects undertaken for ACC over the two-year period focussed on industry 4.0 readiness (data, automation, change management) and operational excellence. During this period only 2 projects were followed through to completion, with a number of others termed at the "Define" phase.
- Tools and techniques learnt through the residential were applied in internal workshops, and could be termed unsuccessful due to a lack of openness or interest in the YFI program.

5.4 Industry Benefit

5.4.1 Increased Awareness + Ability to Explore

- The call to action of the YFI program along with the information delivered through the six workshops has substantially lifted the profile for change needed within the Industry. Although the observation is only from a personal level, the benefit to industry can be identified through increased robustness in curiosity by participants to challenge existing norms.

5.4.2 Cross Industry Collaboration + Networks

- Re-inforcing this curiosity is networks, connections and information gathered cross industry that allows for further exploration and learnings beyond our current knowledge base. This is a critical component in exploring and understanding challenges and opportunities, and aligning the correct resources to address these.

6 Conclusions and Recommendations

6.1 Conclusions

The primary objectives of the Young Food Innovator's trainee program have been completed and been subsequently endorsed by ACC and MLA program group as determined by:

- The weekly reporting to ACC senior management;
- Presentation of projects by ACC's trainees to the YFI's Residential(s);
- Periodical updates with MLA project manager and MLA's YFI program manager; and
- ACC senior management endorsed the findings and proposed next steps.

The project focus has been on utilising knowledge built over the first 12 months to define, implement and control initiatives that focus on the reliability and effectiveness of resource utilisation; particularly Water, Electricity and Coal. In developing initiatives Safety and Asset Care were identified as central to ACC operational excellence, as each of the four mantras are used as pillars to build programs that result in firm augmentation between people and equipment through a culture that embraces information.

Various projects managed by the ACC trainee during the period were part of the effort of ACC to improve its value chain by creating more value out of its limited product and existing production. At the conclusion of project, a comprehensive understanding of the end-to-end SCIMS has been developed and was presented to senior ACC processing and agribusiness management.

The outcomes of the project were evidenced by:

- Effective implementation of learning from (insights) data in the prescribed insights2innovation theme.
- Contribution to the company's innovation culture and improvements in specific company innovation measures.
- Efficient project delivery in accordance with budgets and timelines.
- Proactive delivery and contribution to ACC Supply Chain Management - quality, effectiveness, measurable outcomes.
- Contribution to the Young Food Innovators Network.

Building on knowledge gained through the project, there have remained a number of constraints to executing the foundation projects and ensuring a cost effective and sustainable level of system sophistication is developed for future expansion. This is a must have for both current data interpolation and to provide the highway for predictive factory augmented optimisation into the future.

6.2 Recommendations

The key achievements of the project were:

- Waste Reduction – Process improvement of Stick water reuse in rendering.
- Water Reduction – Belt press and reuse water.
- Adoption of fail early techniques for rapid assessment of project opportunities based on the “real” problem.

Recommended next steps:

- Look at opportunities for improving company alignment to focus on required activities
- Realign current projects and ACC Processing Trainee expectations on deliverables
- Identify how increased stakeholder engagement can be achieved
- Improve access of current data so that information can be readily available to the right people for improved situational awareness on BAU and Non-BAU activities. Business Imperatives & key business improvement focus areas

The recommendation is to continue and build on the work established through this program. Specifically, continuation of current projects, and where appropriate the development of tangible outcomes.

7 Key Messages

The key messages and learnings were:

- 1) The overall objective of the co-funded position was to use data and information generated in the business and customer channels to provide insights to identify demand opportunities. This will in turn inform supply strategies through primary processing, further processing and new growth opportunities to create and capture value with a focus on export markets and new market segments.
- 2) Building and delivering a strategic value chain thinking and capabilities system for primary and further processing production systems, meat procurement/scheduling and grading model will be based on product supply key points, consumer and end-customer insights encompassing:
 - Excellence in category management and price point planning to create and capture carcass value using portfolio of strategic growth options and methodologies to convert information to insights to innovation strategies informed by emerging consumer/customer trends such as active ageing, snacking and convenience.
 - VCD applied to the development for new markets and modes of operation
 - Assessment of the viability and useability (i.e. evaluation, pilot and implementation) of various production data capture and analyses systems such as Ignition.
 - Evaluation and integration of various data management real-time platforms that can streamline online business decision making tools and threat analysis (e.g. Ignition software and ileader).
 - Mapping all data management systems across ACC business and evaluate the master framework for measure, monitor and control of data across the ACC business.
 - Value based marketing and further processing design for value creation/capture of MSA and/or non-MSA supply.

- Integration and alignment of beef processing production through to Coles' customers with farm and livestock production systems (jointly with "supply" ACC trainee).
- Value based marketing approach from primary/further processing to retail markets using value chain design that feeds into the "demand" traineeship program.

8 Appendix – Supporting Documents

8.1 Work Plan on a Page (ACC Processing Trainee, Glenn Bulloch)

Plan on a Page;

Item No.	Description	Deliverable	Outcome	Due Date/ Status
1	Operational Excellence (C.I)			
1.1	Process Water Recovery Plant – Automated Aerobic Pond Monitoring and Control.	Detailed design of Aerobic Pond Automation + Capex Approval.	Improved trade waste discharge and reduced risk associated with managing pond operation.	In final commissioning.
1.2	Rendering – SCADA upgrade to Ignition.	Contribute to project group.	Understanding of Ui and Ux in relation to situational awareness in SCADA design.	Complete
2	De-carbonisation & Cost Reduction (Energy)			
2.1	Whole Site	CSM of ACC Metering.	Identification of metering capacity to investigate EMS for ACC site.	In Progress.
2.2	Boilers + Tank Farm	Facilitate UQ “Human Factors” Thesis	Identify problems and explore potential solutions for system improvements.	Final presentation march, 2018
3	Water Sustainability & Cost Reduction (Water)			
3.1	QUU Site Supply metering	Upgrade of site mains water metering	Real time metering of total site supply.	September, 2017
3.2	Slaughter Floor – Water Portal	Effective Water Campaign.	Operational tools and reporting to implement and monitor improvements in water use effectiveness.	Future Discussion Needed
4	Cyclic Economy & Cost Reduction (Waste)			
4.1	Whole Site waste reduction.	Contribute to ACC Waste2Energy PCG	Exposure to concepts and project detail.	Ongoing
4.2	ACC Site Solid Waste Mass Balance	Weekly reporting of waste volumes.	Identification of value propositions.	Ongoing
5	Business Improvement (ERP, Culture and Other Projects)			
5.1	IT/Automation	Digital strategy for Industry 4.0	IT 2022 plan.	Future Discussion Needed
5.2	SUT <i>i</i> IOT	Assist with <i>i</i> IOT in plant trial.	Milestone 1 trial.	Waiting next steps
6	MLA Contract Work (Specific MLA Work)			
6.1	Residential 5	Innovating Culture	Overview of innovation methods for corporate environments.	Complete
6.2	Focus Project	MLA Major Project	Design and Sign-off.	Stalled.